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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,278	10/30/2000	Daniel R. Leger	H0001242	4387

128 7590 01/14/2003

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EXAMINER

TRAN, DALENA

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/698,278

Applicant(s)

LEGER ET AL.

Examiner

Dalena Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Notice to Applicant(s)**

1. This office action is responsive to the amendment filed on 11/5/02. Claims 1-39 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, and 8, are rejected under Tu (6,014,606) in view of Musland-Sipper (6,313,759), and Simpson et al. (5,999,882).

As per claim 1, Tu discloses an apparatus for providing weather information onboard an aircraft, comprising: a processor unit which processes weather information after it is received onboard the aircraft from a ground-based source (see the abstract; and columns 2-3, lines 59-54). Tu does not disclose plurality of types of weather information. However, Simpson et al. disclose ground-based source containing a plurality of types of weather information (see columns 5-6, lines 49-20). Tu also does not disclose a user selectable option that that allows the user to request specific weather information. However, Musland-Sipper disclose a graphical user interface which provides a graphical presentation of the weather information to a user onboard the aircraft, and which includes a user-selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft (see columns 2-4, lines 61-55). It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify the teach of Tu by combining a plurality of types of weather information, and a graphical user interface which provides a graphical presentation of the weather information to a user onboard the aircraft, and which includes a user-selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft to provide to the pilot variety of weather selection information and a user-selectable option that allows the user to request specific weather information for transmission, therefore an exact information that a user needed can be provided from the ground station, this help to shorten the time need to transmit the unnecessary information that the user do not need to be transmitted.

As per claim 3, Musland-Sipper mentions the graphical user interface includes a user-selectable option that allows the user to select what weather information is automatically transmitted from the ground-based source (see columns 2-4, lines 61-55).

As per claim 4, Tu discloses the graphical user interface includes a user-selectable option for displaying the weather information in cross-sectional view along a route of the aircraft (see columns 5-6, lines 52-59).

As per claim 5, Tu does not disclose multiple types of weather data. However, Simpson et al. disclose the graphical user interface allows the user to view multiple types of weather data simultaneously (see columns 5-6, lines 49-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining the graphical user interface allows the user to view multiple types of weather data simultaneously to provide the user a full range of weather information along a travel route in real time, therefore, the user can take an appropriate action to detour to another route safely and timely.

As per claim 8, Tu discloses a processor unit which processes weather information, after it is received onboard the aircraft from a ground-based source (see the abstract; and columns 2-3, lines 59-54). Tu does not disclose three-dimensional weather information. However, Simpson et al. disclose weather information three-dimensional weather information (see columns 1-2, lines 29-17; columns 3-4, lines 20-30; and column 11, lines 10-42). Tu does not disclose a user selectable option that that allows the user to request specific weather information. However, Musland-Sipper disclose a graphical user interface includes a user-selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft (see columns 2-4, lines 61-55). Tu also does not disclose a plan view of the weather information for a selected altitude. However, Simpson et al. disclose provides a plan view of the weather information for a selected altitude to a user onboard the aircraft, and which includes a user-selectable option for changing the selected altitude (see columns 10-11, lines 65-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining a plan view of the weather information for a selected altitude to a user onboard the aircraft, and which includes a user-selectable option for changing the selected altitude to provide a user selection of variety of weather information in different route of geographic area, so the user can prepare a flight plan in different route of flight path.

4. Claim 2, is rejected under Tu (6,014,606), Musland-Sipper (6,313,759), and Simpson et al. (5,999,882) as applied to claim 1 above, and further in view of Bateman et al. (6,043,756).

As per claim 2, Simpson et al. discloses user-selectable option for graphically displaying at least one of weather satellite information, SIGMET information, and winds aloft information

(see columns 5-6, lines 49-67; and columns 10-12, lines 27-8). Tu, Musland-Sipper, and Simpson et al. do not disclose convection, turbulence, and icing information. However, Bateman et al. disclose convection, turbulence, and icing information (see columns 2-3, lines 11-41). It is obvious that there can be different kind of weather information can be stored in the database and display for the user.

5. Claims 6-7, are rejected under Tu (6,014,606) in view of Musland-Sipper (6,313,759), and Ray et al. (5,757,322).

As per claim 6, Tu discloses a processor unit which processes weather information after it is received onboard the aircraft from a ground-based source (see the abstract; and columns 2-3, lines 59-54). Tu does not disclose a user selectable option that that allows the user to request specific weather information. However, Musland-Sipper disclose the graphical user interface includes a user-selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft (see columns 2-4, lines 61-55). Tu also does not disclose a plan view or the weather information and position of the aircraft to a user onboard the aircraft. However, Ray et al. disclose a plan view or the weather information and position of the aircraft to a user onboard the aircraft, and which includes a user-selectable option for centering the plan view on the position of the aircraft, even as the position of the aircraft changes (see column 4, lines 19-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining a plan view of the weather information and position of the aircraft to a user onboard the aircraft, and which includes a user-selectable option for centering the plan view on the position of the aircraft, even as the position of the aircraft changes for assisting the pilot to visualize a location of weather

information associated with travel route, therefore the pilot can plan an alternate route in case of bad weather in the region where he / she in at the moment.

Also as per claim 7, Ray et al. disclose the graphical user interface includes a user-selectable option for orienting the plan view so the aircraft track points upward (see column 4, lines 19-40).

6. Claims 9-39, are rejected under Tu (6,014,606) in view of Ray et al. (5,757,322), Simpson et al. (5,999,882), and Bateman et al. (6,043,756).

As per claims 9,14,19,24,28,32, and 35, Tu disclose collecting weather information at a centralized data center (see column 4, lines 3-36). Tu does not disclose providing a specific request from the aircraft for the weather information, and transmitting the weather information from the data center to an aircraft in response to the request. However, Ray et al. disclose providing a specific request from the aircraft for the weather information, and transmitting the weather information from the data center to an aircraft in response to the request (see columns 3-4, lines 30-68), and graphically displaying the weather information onboard the aircraft (see columns 5-6, lines 23-4). Tu also does not disclose weather information includes weather satellite information, SIGMET information, and wind aloft information. However, Simpson et al. disclose weather information can includes weather satellite information, SIGMET information, and wind aloft information (see columns 5-6, lines 49-20). Bateman et al. also disclose convection information, turbulence information, and icing information (see columns 2-3, lines 11-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by mentions display many different kinds of

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weather information to make available convenient displaying current global geographic specific weather conditions and allows pilots to avoid adverse weather along the flight route.

As per claim 31, Bateman et al. also disclose the SIGMET information is graphically displayed in the form of geometric shapes representing areas affected by SIGMETs (see columns 3-4, lines 31-10).

As per claims 10-11, 15-16,20-21, and 36-37, Tu does not disclose information regarding weather activity observation and forecasts. However, Simpson et al. disclose weather information that is graphically displayed onboard the aircraft includes information regarding weather activity observation and forecasts (see columns 5-6, lines 11-67; and columns 7-8, lines 33-67). Bateman et al. disclose convection information (see columns 2-4, lines 66-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining the weather information that is graphically displayed onboard the aircraft includes information regarding observation and forecasts, and weather information can be different kind of weather for providing a user of selecting in viewing information over whole range of geographic area along the flight path.

As per claims 12-13, 17-18,22-23,26-27,29-30,33-34, and 38-39, Tu does not disclose telephone communication. However, Ray et al. disclose the weather information is transmitted from the data center to the aircraft via a telephony, and satellite communication link (see columns 3-4, lines 31-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining the weather information is transmitted from the data center to the aircraft via a telephony for easy and faster communicate with the ground control center.



As per claim 25, Tu does not disclose the weather satellite information is altitude based. However, Simpson et al. disclose the weather satellite information that is graphically displayed onboard the aircraft is altitude based (see columns 10-11, lines 65-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining the weather satellite information that is graphically displayed onboard the aircraft is altitude based for accurately provide a user exactly weather information depend on the position of the aircraft.

#### **Remarks**

7. Applicant's argument filed on 11/5/02 has been fully considered and they are deemed to be persuasive. However, upon updated search, the new ground of rejection has been set forth as above.

Applicant's argue on page 4 of the amendment that Tu is provide one way communication. Tu reference have a graphical user interface that allows the pilot to view the weather information receive from the ground station (see column 3, lines 25-45), but does not have an option that allow a user request weather information from the ground station. Therefore, the rejection in item 3 above have been combined with ('759), and ('882) references. ('759) discloses a graphical user interface that allow a user request weather information from the ground station as the claim invention. Even though Tu reference disclose receiving updated weather information on a continuing basis, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Tu by combining a graphical user interface that allow a user request weather information, because when the weather information is requested by the user, the ground station will transmit exactly information that the

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user wanted, eliminate the unnecessary information that the user doesn't need to be transmitted, therefore the time to receive the information is faster, because less information is sent, and when the user receive the information, he or she will not take time to separate out the information he or she does not interested in.

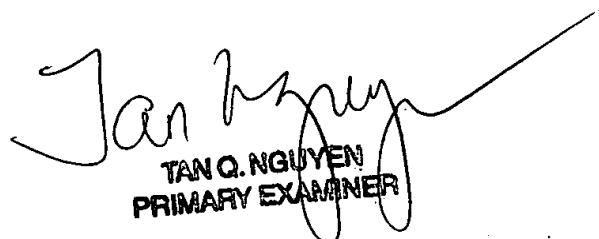
Also, in page 5, in the third paragraph of the amendment, applicant's argue that ('759) discloses "weather deviation" is not a specific weather information. However, "weather deviation" is just an example of a REPORT / REQUEST, ('759) disclose other request also included (see column 4, lines 32-34). It is obvious that different kind of weather product can include in graphical user interface as discloses in ('882), see columns 5-6, lines 42-68, and columns 9-10, lines 17-36. Therefore, in combine ('606) with ('759) and ('882) references, the rejection under 103 is considered to be proper.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

/dt  
January 10, 2003

  
TAN Q. NGUYEN  
PRIMARY EXAMINER